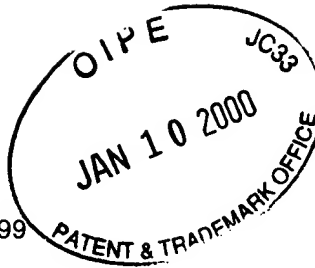


Applicant or Patentee: Lee J. Burrows

Serial or Patent No.: 09/419,347

Filed or Issued: October 15, 1999



For: "Ion Exchange Waveguides and Methods of Fabrication"

**VERIFIED STATEMENT (DECLARATION) CLAIMING  
SMALL ENTITY STATUS (37 C.F.R. 1.9(f) and 1.27(d))  
NON-PROFIT ORGANIZATION**

I hereby declare that I am an official of the non-profit organization identified below and that I am empowered to act on its behalf:

NAME OF ORGANIZATION: California Institute of Technology

ADDRESS: 1200 East California Boulevard, Pasadena, California 91125

I hereby declare that the above-identified non-profit organization qualifies as a non-profit organization as defined in:

- ☐ 37 C.F.R. §1.9(e)(1) (an institution of higher learning located in any country);
- ☐ 37 C.F.R. §1.9(e)(2) (an organization described in §501(c)(3) of the Internal Revenue Code of 1954);
- ☐ 37 C.F.R. §1.9(e)(3) (an organization which otherwise qualifies under 35 U.S.C. §201(i));
- ☐ 37 C.F.R. §1.9(e)(4) (a foreign organization which, if domestic, would qualify under 37 C.F.R. §1.9(e)(2) or (3));

I hereby declare that exclusive rights under contract or law have been conveyed, to and remain with the non-profit organization identified above with regard to the invention, entitled:

**"Ion Exchange Waveguides and Methods of Fabrication"**

by inventor(s): Lee J. Burrows

described in:

- ☐ the specification filed herewith.
- ☐ application serial No. 09/419,347, filed October 15, 1999.
- ☐ patent No. \_\_\_\_\_, issued \_\_\_\_\_.

If the rights held by the above identified non-profit organization are not exclusive, each individual, concern or organization having rights to the invention is listed below and no rights to the invention are held by any person, other than an inventor who qualifies as an individual inventor under 37 C.F.R. §1.9(c), who could not qualify as a small entity under 37 CFR §1.9.\*

\*Note: Separate verified statements are required from each named person, concern or organization having rights to the invention averring to their status as small entities. (37 CFR 1.27).

FULL NAME:

ADDRESS:

☐ Individual ☐ Small Business Concern ☐ Nonprofit Organization

FULL NAME:

ADDRESS:

☐ Individual ☐ Small Business Concern ☐ Nonprofit Organization

FULL NAME:

ADDRESS:

☐ Individual ☐ Small Business Concern ☐ Nonprofit Organization

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a non-profit organization is no longer appropriate. (37 CFR 1.28(b)).

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which the verified statement is directed.

California Institute of Technology  
1200 East California Boulevard  
Pasadena, California 91125

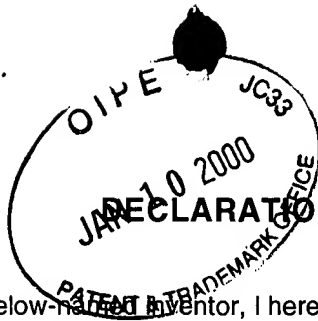
Signature

Date

  
**CHRISTOPHER T. MOULDING**  
**ASST. DIRECTOR, TECHNOLOGY TRANSFER**

Name of Person Signing

Title



## DECLARATION & POWER OF ATTORNEY

As a below-named inventor, I hereby declare that:

My correct residence, post office address and citizenship are stated below next to my name.

I believe myself to be the original, first and sole inventor (if only one name is listed below) or an original and first joint inventor (if more than one name is listed below) of the subject matter which is disclosed and claimed and for which a patent is sought on the invention entitled:

### "Ion Exchange Waveguides and Methods of Fabrication"

The specification of this subject matter:

- ☐ is attached hereto.
- x was filed on October 15, 1999;
- was assigned serial No. 09/419,347;
- which was amended on \_\_\_\_\_.

I hereby state that I have reviewed and understand the contents of the above identified patent application, including the claims, as amended by any amendment(s) referred to above. I do not know and do not believe that the claimed invention was ever known or used in the United States of America before my invention thereof, or patented or described in any printed publication in any country before my invention thereof or more than one year prior to this application, that the same was not in public use or on sale in the United States of America more than one year prior to this application, and that the invention has not been patented or made the subject of an inventor's certificate issued before the date of this application in any country foreign to the United States of America on an application filed by me or my legal representatives or assigns more than twelve months (for a utility patent application) or six months (for a design patent application) prior to this application.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with 37 C.F.R. §1.56(a).

I hereby claim foreign priority benefits under 35 U.S.C. §119 (a)-(d) of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed.

#### Prior Foreign Application(s)

#### Priority Claimed

Number	Country	Month/Day/Year Filed	Yes	No
Number	Country	Month/Day/Year Filed	Yes	No
Number	Country	Month/Day/Year Filed	Yes	No

I hereby claim the benefit under 35 U.S.C. §119(e) of any United States provisional application(s) listed below:

<u>60/084,940</u>	<u>May 11, 1998</u>
Application Number	Filing Date

Application Number	Filing Date
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I hereby claim the benefit under 35 U.S.C. §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in these prior United States application(s) in the manner provided by 35 U.S.C. §112, I acknowledge the duty to disclose material information as defined in 37 C.F.R. §1.56(a) which occurred between the filing date of the prior application(s) and the national or PCT international filing date of this application.

<u>09/309,361</u>	<u>May 11, 1999</u>	<u>Pending</u>
Application No.	Filing Date	Status (Issued, Pending, Abandoned)

Application No.	Filing Date	Status (Issued, Pending, Abandoned)
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Application No.	Filing Date	Status (Issued, Pending, Abandoned)
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Application No.	Filing Date	Status (Issued, Pending, Abandoned)
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I hereby appoint Kenneth D'Alessandro, Registration No. 29,144; David B. Ritchie, Registration No. 31,562; Marc S. Hanish, Registration No. 42,626; John P. Schaub, Registration No. 42,125; Gerhard W. Thielman, Registration No. 43,186; Reynaldo C. Barceló, Registration No. 42,290; Lee M. Pederson, Registration No. 38,269; and Nathan R. Rieth, Registration No. 44,302 as attorneys of record with full power of substitution and revocation, to prosecute this application and transact all business in the United States Patent and Trademark Office connected therewith, and certifies that it is the assignee of the entire right, title and interest in the patent application identified above by virtue of an assignment, a copy of which is attached, from the inventor(s) of the patent application identified above.

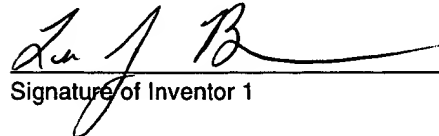
Please send all correspondence and direct all telephone calls to:

David B. Ritchie  
D'Alessandro & Ritchie  
P.O. Box 640640  
San Jose, CA 95164-0640  
Telephone (408) 441-1100

I, the undersigned, declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing therefrom.

FULL NAME OF INVENTOR 1	FIRST Name	MIDDLE Initial(s)	LAST Name	
	Lee	J.	Burrows	
RESIDENCE AND CITIZENSHIP	City	State or Foreign Country	Country of Citizenship	
	San Francisco	California	United States of America	
POST OFFICE ADDRESS	Number and Street	City	State or Country	Zip Code
	4106 - 25th Street, #4	San Francisco	California	94114

I further declare that all statements made herein of my own knowledge are true and that all statements made upon information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

	11-8-99
Signature of Inventor 1	Date

**37 C.F.R. §1.56****Duty to disclose information material to patentability**

(a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim is cancelled or withdrawn from consideration, or the application becomes abandoned. Information material to the patentability of a claim that is cancelled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information which is not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by §§1.97(b)-(d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:

- (1) Prior art cited in search reports of a foreign patent office in a counterpart application, and
- (2) The closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably defines, to make sure that any material information contained therein is disclosed to the Office.

(b) Under this section, information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and

- (1) It establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim; or
- (2) It refutes, or is inconsistent with, a position the applicant takes in:
  - (i) Opposing an argument of unpatentability relied on by the Office, or
  - (ii) Asserting an argument of patentability.

A prima facie case of unpatentability is established when the information compels a conclusion that a claim is unpatentable under the preponderance of evidence, burden-of-proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability.

(c) Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:

- (1) Each inventor named in the application;
- (2) Each attorney or agent who prepares or prosecutes the application; and
- (3) Every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application.

(d) Individuals other than the attorney, agent or inventor may comply with this section by disclosing information to the attorney, agent, or inventor.


**ASSIGNMENT**

WHEREAS, I, Lee J. Burrows, a citizen of the United States of America, residing at 4106 - 25th Street, #4, San Francisco, California 94114, have invented a "Ion Exchange Waveguides and Methods of Fabrication" for which I have executed application papers for a U.S. patent thereon which was filed on October 15, 1999, serial no. 09/419,347; and

WHEREAS, California Institute of Technology, a California Non-profit corporation, having a place of business 1200 East California Boulevard, Pasadena, California 91125, is desirous of acquiring the exclusive right, title and interest in and to said invention and in and to the Letters Patent to be granted and issued therefor in the United States of America and its territories and possessions, and all countries foreign thereto;

NOW, THEREFORE, for a valuable consideration, the receipt of which is hereby acknowledged, I, Lee J. Burrows, do sell, assign, transfer and set over unto the said California Institute of Technology, its successors and assigns, the full and exclusive right, title and interest in and to said invention, and in and to any and all Letters Patent to be granted and issued therefor, not only for, to and in the United States of America, its territories and possessions, but also for, to and in all other countries including all priority rights under the International Convention; and I Lee J. Burrows, hereby authorize and request the Commissioner of Patents and Trademarks to issue said Letters Patent to said California Institute of Technology, its successors and assigns, in accordance with this Assignment.

WITNESS MY HAND at PASADENA, California, this 8<sup>th</sup> day of NOVEMBER, 1999.

  
Lee J. Burrows

STATE OF CALIFORNIA )  
 ) ss.  
COUNTY OF \_\_\_\_\_)

On this \_\_\_\_\_ day of \_\_\_\_\_, 1999, before me, a Notary Public, personally appeared Lee J. Burrows, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person/s whose name is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacities, and that by his/her/their signature/s on the instrument the person/s or the entity upon behalf of which the person/s acted, executed the instrument.

WITNESS my hand and official seal.

\_\_\_\_\_  
NOTARY PUBLIC

**COPY**